

AN 117:261595 HCA Full-text  
 TI Electrostatographic liquid developer  
 IN Kato, Eiichi; Hattori, Hideyuki  
 PA Fuji Shashin Film K. K., Japan  
 SO Jpn. Kokai Tokkyo Koho, 29 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 04046354	A2	19920217	JP 1990-153859	19900614
	JP 2640165	B2	19970813		
PRAI	JP 1990-153859		19900614		

AB In the title electrostatog. liquid developer obtained by dispersing resin particles in a nonaq. solvent of elec. resistivity  $\geq 10^9 \Omega\text{-cm}$  and dielec. constant  $\leq 3.5$ , the resin particles are obtained by polymerizing a monofunctional monomer, soluble in the nonaq. solvent before polymerization but insol. upon polymerization, in the presence of a dispersion- stabilizing resin and an oligomer. The dispersion-stabilizing resin is an A-B block copolymer (weight-average mol. weight  $1 + 10^4\text{-}5 + 10^5$ ) which is soluble in the nonaq. solvent used and comprises an A block employing the polymer component  $[\text{CHa1Ca2}(\text{V0-R0})]$   $[\text{V0} = \text{CO}_2, \text{OCO}, (\text{CH}_2)_y\text{CO}_2, (\text{CH}_2)_y\text{OCO}, \text{O}$  ( $y = 1\text{-}3$ );  $\text{R0} = \text{C}_{\geq 10}$  aliphatic;  $\text{a1,2} = \text{H}, \text{halo}, \text{CH}, \text{hydrocarbyl}, \text{CO}_2\text{R1}$  or  $\text{CO}_2\text{R1}$  with interposed hydrocarbon group ( $\text{R4} = \text{H}, \text{hydrocarbon group}$ )], and a B block based on a polymer component containing polar groups and(or) a monofunctional monomer. The oligomer (number-average mol. weight  $\leq 1 + 10^4$ ) has the structural repeating unit  $[\text{CHe1Ce2}(\text{E1-G1})]$   $[\text{E1} = \text{CO}_2, \text{OCO}, (\text{CH}_2)_1\text{CO}_2, (\text{CH}_2)_1\text{OCO}, \text{O}, \text{SO}_2, \text{CONHCO}_2, \text{CONHCONH}, \text{COND1}, \text{SO}_2\text{ND1}, \text{phenylene}$  ( $\text{D1} = \text{H}, \text{C1-22 hydrocarbon}, 1 = 1\text{-}3$ );  $\text{G1} = \text{C1-22 hydrocarbon group}$  which may contain interposed groups;  $\text{e1,2} = \text{H}, \text{halo}, \text{CN}, \text{hydrocarbon}, \text{CO}_2\text{D3}, \text{hydrocarbon-interposed CO}_2\text{D3}$  ( $\text{D3} = \text{H}, \text{hydrocarbon group}$ )] and is terminated at 1 end only by the claimed polar groups. The liquid developer has good redispersibility, shelf life, stability, image reproducibility, and fixability.

IC ICM G03G009-13

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other

Reprographic Processes)

ST electrostatog liq developer acrylic resin

IT Acrylic polymers, uses

RL: USES (Uses)

(electrostatog. liquid developer containing)

IT Electrophotography

(liquid developer for, acrylic polymer latex containing)

IT Electrophotographic developers

(liquid, acrylic polymer latex for)

IT 9003-53-6, Styrene homopolymer 25035-18-1 25086-89-9,  
 Vinylacetate-N-vinylpyrrolidone copolymer 25609-89-6, Crotonic  
 acid-vinylacetate copolymer 139357-86-1 139357-87-2 139357-88-  
 3  
 139357-89-4 139406-18-1 143646-39-3 143646-40-6 143646-41-7  
 143646-42-8 143672-55-3 143672-56-4  
 RL: USES (Uses)  
 (dispersion-stabilizing resin, for latex preparation)

IT 139357-91-8 139357-92-9 143729-51-5  
 RL: USES (Uses)  
 (dispersion-stabilizing resin, latex preparation using)

IT 9003-20-7  
 RL: USES (Uses)  
 (latex containing, electrostatog. liquid developer from)

IT 126639-06-3P 139357-82-7DP, hydrolysis product 139357-84-9DP,  
 reduction  
 product 139357-85-0P 143646-29-1DP, hydrolysis product  
 RL: TEM (Technical or engineered material use); PREP (Preparation);  
 USES  
 (Uses)  
 (preparation of, as dispersion-stabilizing resin)

IT 67076-30-6P 79964-36-6P 127939-27-9P 132612-34-1P 139720-73-  
 3P  
 140693-69-2P 140693-79-4P 140693-84-1P 140708-09-4P 140708-  
 10-7P  
 140863-46-3P 140863-47-4P 140863-48-5P 140863-50-9P 140863-  
 51-0P  
 140863-52-1P 140863-57-6P 140863-60-1P 140863-68-9P 140863-  
 72-5P  
 140863-75-8P 140863-78-1P 140863-81-6P 140888-43-3P 141431-  
 76-7P  
 141472-43-7P 141472-44-8P 141492-10-6P 143568-15-4DP, polar  
 group  
 terminated 144644-55-3P 144644-58-6P 144644-59-7P 144644-60-  
 0P  
 RL: PREP (Preparation)  
 (preparation of, as oligomer)